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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
CHAN, KAWING				
ART UNIT		PAPER NUMBER		
2837				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/582,514

Applicant(s)

KIGAWA ET AL.

Examiner

Kawing Chan

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2009.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7, 8 and 11-17 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-4, 7, 8 and 11-17 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. The Amendments and Applicant Arguments submitted on 04/16/09 have been received and its contents have been carefully considered. The examiner wishes to thank the Applicant for the response to the Examiner's action and for amending the claims in the appropriate manner.

Claims 5-6 and 9-10 were previously withdrawn from consideration.

Claims 11-17 are newly added.

Claims 1-4, 7-8 and 11-17 are pending for examination.

Claim Objections

2. The objections to claims 2 and 3 have been removed in response to Applicant's amendments.

Claim 12 is objected to because of the following informalities: "patter" in line 5. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The rejection to claim 7 has been removed in response to Applicant's Amendments.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pramanik et al. (US 5,299,661) in view of Angst (US 2004/0173413 A1) and Hwang (KR 2001105482 A).

In Re claim 1, Pramanik discloses an emergency stop system for an elevator (10) (Abstract), Comprising:

- A governor rope (18) that moves in synchronism with raising and lowering of the car (10) (Figure 1);
- A rope catching device (20) (Abstract & Figure 1) and a restraining portion (111a, 123a) (Col 3 lines 35-45);
- A braking portion (34, 36) (Figures 1-4) mounted in the car (10) and having a braking member (70) capable of coming into and out of contact with a guide rail (12) for guiding the car (10), the braking portion (34, 36) braking the car (10) by pressing the braking member (70) against the guide rail (12) when the

governor rope (18) is restrained and the car (10) is displaced with respect to the governor rope (18) (Abstract, Col 4 line 20 to Col 6 line 63).

Pramanik fails to disclose a detection portion (although inherent), a control portion, and the rope catching device comprises an electromagnetic actuator, which is activated by an activation signal.

However, with reference to Figures 1 and 4, Angst discloses a detection portion for detecting a speed (24) and a position (21) of a car (Paragraph [0031]), a control portion (15) having a storage portion (24) that stores, in correspondence with the position of the car, an overspeed setting level (Paragraphs [0033, 0034]) set to be a value larger than the speed of the car during normal operation (Figures 2-5 & 7-8), the control portion (102) outputting an activation signal when the speed of the car becomes higher than the overspeed setting level at the position of the car obtained based on information from the detection portion (24), and the overspeed setting level progressively varies based on a distance between the position of the car and a service floor (Figures 2-5 & 7-8). Also, Mueller discloses the safety device (10) of the speed governor is activated when an activation signal is transmitted from the control unit (15, 24.1) (Paragraphs [0031, 0035]) to the actuator (Paragraphs [0022, 0049]).

Nevertheless, Hwang discloses rope catching device (Figures 4 & 6) having an electromagnetic actuator (26) that is activated upon input of the activation signal (Abstract), and a restraining portion (20) that restrains the governor rope upon activation of the electromagnetic actuator (36) (Abstract; Claim 1).

Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have modified the teachings of Pramanik with the teachings of Angst and Hwang, since it is known in the art to utilize position and speed monitoring devices in an elevator control system so as to be able to evaluate the speed status of the elevator car based on the predetermined speed limit at different positions; and it is also known in the art to utilize a solenoid to activate a safety device of an elevator system so that the activation of the safety device can be controlled by energizing or de-energizing the solenoid.

In Re claim 2, Angst teaches a hoistway in which the car is raised and lowered is provided with a zone in which the car is accelerated or decelerated during normal operation and which adjoins the service floor for the car (Figures 2-5 & 7-8); and overspeed setting level in the zone is set to become progressively smaller toward the service floor (Figures 2-5 & 7-8).

In Re claim 3, with reference to Figure 1A, Angst teaches a reference position detecting portion (20) is provided in the zone, for detecting a position that serves as a reference for detecting the position of the car by the detection portion (21) (Paragraph [0031]).

In Re claim 11, Angst discloses a hoistway in which the car is raised and lowered includes a first speed changing zone, a constant speed zone, and a second speed changing zone (Figures 2 & 3), the overspeed setting level (28) becomes progressively smaller toward the service floor when the car is in the first speed changing zone or the

second speed changing zone, and the overspeed setting level is constant when the car is in the constant speed zone (Figures 2 & 3).

6. Claims 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pramanik et al. (US 5,299,661) in view of Angst (US 2004/0173413 A1) and Hwang (KR 2001105482 A) as applied to claim 1 above, and further in view of Iijima (US 5,686,707).

In Re claim 12, Pramanik, Angst and Hwang have been discussed above, Angst further discloses the overspeed setting level (28) stored in the storage portion (24.2) includes a first overspeed pattern (28.1) and a second overspeed pattern (28.2), and each of the normal speed pattern (27), first overspeed pattern (28.1) and second overspeed pattern (28.2) progressively vary based on the distance between the position of the car and the service (Figures 7 & 8; Paragraph [0041]).

Pramanik, Angst and Hwang fail to disclose the normal speed pattern is stored in the storage portion.

However, Iijima discloses the normal speed pattern (speed pattern of the cage from a starting floor to a stop floor) is stored in a storage portion (31) of an elevator control system (Col 3 lines 16-46).

Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have modified the teachings of Pramanik, Angst and Hwang with the teachings of Iijima, since it is known in the art to store the previous speed pattern of an elevator car so as to be able to adjust the speed of the car on the basis of the previously stored speed pattern.

In Re claim 13, Angst discloses a hoistway in which the car is raised and lowered includes a first speed changing zone, a constant speed zone, and a second speed changing zone (Figures 2 & 3), each of the normal speed pattern (27), the first overspeed pattern (28.1), and the second overspeed pattern (28.2) becomes progressively smaller toward the service floor when the car is in the first speed changing zone or the second speed changing zone (Figures 7 & 8), and each of the normal speed pattern, the first overspeed pattern, and the second overspeed pattern is constant when the car is in the constant speed zone (Figures 2, 3, 7 & 8).

In Re claim 14, Angst inherently discloses the control portion (15) is configured to set a normal speed of the car based on the normal speed pattern (27), activate a normal brake when the speed of the car becomes higher than first overspeed level (28.1) (Paragraph [0041]), and output the activation signal when the speed of the car becomes higher than the second overspeed level (28.2) (Paragraph [0041]).

In Re claim 15, Angst discloses the second overspeed pattern (28.2) is greater than the first overspeed pattern (28.1) and the first overspeed pattern (28.1) is greater than the normal speed pattern (27) at each position of the car (Figures 7 & 8).

In Re claim 16, Angst discloses a difference between the first overspeed pattern (28.1) and the normal speed pattern (27), and a difference between the second overspeed pattern (28.2) and the first overspeed pattern (28.1) are each set to be substantially constant at each position of the car (Figures 3, 7 & 8). Although Figures 7 & 8 do not show the overspeed pattern (28.1 & 28.2) vary along with the normal speed pattern at the beginning portion, it would have been obvious to one skilled in the art to

have overspeed pattern vary along with the normal speed pattern since Angst also suggests the same in Figure 3.

In Re claim 17, Iijima discloses the control portion (37) is configured to compute the overspeed setting level each time the elevator travels (limit switches, acting as the overspeed setting level, is used to detect whether the elevator lands from a normal distant or abnormal distant based on the current speed of the elevator and the requested landing position; the overspeed setting level depends on the speed of the elevator and the landing position of the elevator) (Col 3 lines 16-64).

7. Claims 4, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pramanik et al. (US 5,299,661) in view of Angst (US 2004/0173413 A1) and Hwang (KR 2001105482 A) as applied to claim 1 above, and further in view of Muller (US 2004/0079591 A1).

In Re claim 4, Pramanik, Angst and Hwang have been discussed above, but they fail to disclose the detection portion is provided to a governor sheave around which the governor rope is wound.

However, with reference to Figure 2, Mueller teaches the detection portion (110) is provided to a governor sheave (speed governor) around which the governor rope (cable) is wound (Paragraphs [0047, 0064, 0065]).

Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have modified the teachings of Pramanik, Angst and Hwang with the teachings of Muller, since it is known in the art to provide a detection

portion to a governor sheave so that the speed of the of the elevator can be determined by the number of rotation of the governor sheave.

In Re claim 7, Hwang teaches the restraining portion (20) is a pressing member capable of displacement into and out of contact with the governor sheave (Figure 6); and the pressing member (20) is pressed against the governor sheave (Figure 6) through the governor rope upon activation of the electromagnetic actuator (26) (Abstract; Claim 1).

In Re claim 8, Hwang discloses the rope catching device (Figures 4 & 6) further has a ratchet gear (12, 12') rotated integrally with the governor sheave (Figures 4 & 6), and a latch (7, 7', 9, 9') operating in an interlocking relation with the pressing member (20) and capable of coming into engagement with the ratchet gear (Figure 4 & 6) upon activation of the electromagnetic actuator (26) (Abstract; Claim 1); and when the latch (7, 7', 9, 9') is engaged with the ratchet gear (Figure 4 & 6), the pressing member (20) is displaced due to a rotation force of the ratchet gear (213) to be pressed against the governor sheave (Figures 4 & 6) through the governor rope (Abstract; Claim 1).

Response to Arguments

8. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kanezaki and Kim are further cited to show related teachings in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kawing Chan whose telephone number is (571)270-3909. The examiner can normally be reached on Mon-Fri 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on 571-272-2227. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BENTSU RO/
Primary Examiner, Art Unit 2837

Kawing Chan
Examiner
Art Unit 2837

